



Public Notice

US Army Corps
of Engineers

Sacramento District
1325 J Street
Sacramento, CA 95814-2922

Public Notice Number: 200000664

Date: November 23, 2000

Comments Due: December 23, 2000

In reply, please refer to the Public Notice Number

TO WHOM IT MAY CONCERN:

SUBJECT: Application for a Department of the Army permit under the authority of Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act to discharge dredged or fill materials in the American River (River Mile 7.25), to upgrade the existing water intake structure to meet current fish screen requirements, as shown in the attached drawings.

APPLICANT: Gary Gosse
City of Sacramento Department of Utilities
1395 35th Avenue
SACRAMENTO, CA 95822-2911

LOCATION: Existing intake structure at
7501 College Town Drive, Sacramento, CA 95826
Section 10, Township 8 North, Range 5 East, Sacramento County

PROJECT DESCRIPTION:

The proposed E.A. Fairbairn Water Treatment Plant (WTP) Intake Structure Modification Project will enlarge the existing intake structure. The newly proposed structure will be added to the west end of the existing structure and will be constructed in a similar shape as the existing structure. A new substructure, two operating floors, and a superstructure will be added to the existing intake structure. The substructure will be supported by a pile foundation designed to resist vertical and lateral movement via a system of friction and end bearing piles. The substructure itself will be a cast-in-place, reinforced concrete structure measuring approximately 78 feet in length and approximately 20 feet in width. The new substructure will house three pumping bays; each bay will be equipped with 2 fish screens sufficient to pass 15.1 million gallons per day (mgd) at a 0.33 feet per second (fps) approach velocity, and three 30.2mgd vertical turbine pumps. The existing screens will be replaced with new screens and cleaning systems. Also, minor architectural modifications will be made to improve the visual character of the surrounding new structure.

At the top of the substructure will be two operating floor levels; the motor floor at elevation 61.83 mean sea level (msl), and the pump floor at elevation 52.5 msl. Both operating floors will be constructed of cast-in-place reinforced concrete. Below the operating floors are catwalks at elevation 35.25 msl and 18.0 msl that provide access to screen wash piping for maintenance.

The intake structure will be equipped with 6 vertical turbine pumps with flows varying from 10 to 30.2 mgd. Additionally, the intake structure will be capable of meeting the 0.33 fps approach velocity objective when all nine pumps are operating. This means that during the majority of time that the structure will operate, the actual approach velocity will be lower than 0.33 fps. This design will provide additional benefits for juvenile fish, while allowing greater operational flexibility for the City. The superstructure portion of the structure will house the pumps, motors, and the associated electrical equipment necessary to power the modified intake structure.

Fish screens installed in the modified intake structure will be 9 feet high and 12 feet 2 inches wide and the replacements for the existing intake structure will be 9 feet high and 6 feet wide. The new screens will be constructed of stainless steel wedge-wire, and will have 1.75 mm openings. The screens will be bolted to the outside surface of the structure, flush with the face of the structure. The screens will not be removable except via the use of divers. This could be accomplished if maintenance of a screen is needed, or if excessive debris collects on the surface of the screen and is not removable by the cleaning system.

The screens will be cleaned with water spray by backflushing with pumps, to loosen any debris on the screens. The pumps will clean each screen in succession from the upstream end to the downstream end. The screen cleaning system will have the capability for all screens to be cleaned within five minutes. However, it is anticipated that the screens will be initially set for a 20-minute cycle. Evaluations of the efficiency of the 20-minute cycle will be conducted to determine if adjustments to the timing of the cleaning cycle will be needed. Diffuser plates will be installed behind the screens to assure the hydraulic uniformity of flow through the screens.

The project will involve only the intake structure, no WTP facilities will be modified as part of this project, except for the proposed structure. Construction sequence will include the following three stages. Stage 1 (Initial in-river work) consists of a pile supported access roadway to the intake structure site, sheetpile cofferdams to contain intake structure and bridge supports, excavate river channel approximately 10 feet below river bottom elevation, drive structural foundation piles, seal off bottom of construction areas with tremie seal concrete, construct shoring to stabilize sheetpile area, and dewater enclosed sheetpile area. Stage 2 (Work inside cofferdam) consists pouring concrete structure and installation of mechanical equipment. Stage 3 consists of removing sheetpile around structure and bridge supports, and removal of pile supported roadway.

A 24-month construction schedule is anticipated. Equipment and material will be transported and stored at the Fairbairn WTP site and moved to the vicinity of the intake structure as needed. Construction is anticipated to begin March 2001 and end March 2003. To minimize the potential for increases in turbidity in the river near the project site, above ground settling basins will be constructed at the staging area. Water removed from within the cofferdams will be pumped to the settling basins then into the American River. The materials collected in the settling basins will be transported to an appropriate off-site disposal location.

The cofferdam will be constructed by sequential placement of sheetpiles from the upstream to the downstream end of the intake structure. Prior to completion of the downstream end of the cofferdam, seining will be conducted within the cofferdam with a small-mesh seine to remove fish.

This effort will be used to herd fish out of the cofferdam. Once seining is completed, exclusionary nets will be placed in the river to prevent fish from entering the cofferdam during the final stages of completion prior to dewatering. The final stages of completing the cofferdam at the downstream end will take no more than one week. Once the cofferdam has been completed, pumps will be used to dewater the cofferdam. When the cofferdam is partially dewatered, a final seining effort will be conducted within the cofferdam. The existing bays of the intake structure would be retrofitted using either underwater divers or a second cofferdam. If a second cofferdam was used, it would be installed following the removal of the first cofferdam.

AREA DESCRIPTION:

The project site is located on the south bank of the American River at river-mile 7.25. Riparian and wetland habitats are restricted to narrow bands adjacent to the river channel and levees. Vegetation consists primarily of riparian and grassland vegetation including Fremont cottonwood (*Populus fremontii*), California black walnut (*Juglans californica hindsii*), wild grape (*Vitis californica*), and California blackberry (*Rubus vitifolius*). Several sensitive species exist near the project area including the Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), bank swallow (*Riparia riparia*), and occasional bald eagle (*Haliaeetus leucocephalus*), burrowing owl (*Athene cunicularia*) and Sanford's arrowhead (*Sagittaria sanfordii*). The applicant indicates that a site visit conducted on September 24, 1998, did not identify either Sanford's arrowhead or burrowing owl within the area of construction. Four elderberry shrubs were identified in the immediate vicinity of the project area on September 30, 1998.

ADDITIONAL INFORMATION:

The U.S. Bureau of Reclamation and City of Sacramento have prepared a finding of no significant impact in the **September 2000, City of Sacramento Fish Screen Replacement Project, Environmental Assessment/Initial Study, Final Report.**

There are no cultural resources within the Corps permit area for this project. Additionally, the type of work in the permit area is of very limited nature and scope, and in an area which was likely disturbed to construct the existing intake. There is little likelihood of impinging upon a cultural resources site. Mitigation measures for any prehistoric or historic artifacts exposed during construction activities are outlined in the environmental assessment

The U.S. Bureau of Reclamation, through Endangered Species Act Section 7 consultation, has received biological opinions from both the U.S. Fish and Wildlife Service regarding potential effects to federally-listed valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), delta smelt (*Hypomesus transpacificus*), delta smelt critical habitat, Sacramento splittail (*Pogonichthys macrolepidotus*), and the National Marine Fisheries Service regarding potential effects to federally-listed Sacramento River winter-run chinook salmon (*Oncorhynchus tshawytscha*), Central Valley steelhead (*O. mykiss*), Central Valley spring-run chinook salmon (*O. tshawytscha*), and their designated critical habitat.

The District Engineer has made these determinations based on information provided by the applicant and on the Corps' preliminary investigation.

Interested parties are invited to submit written comments on or before **December 23, 2000**. Any person may request, in writing, within the comment period specified in this notice that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing.

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, consideration of property ownership, and in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

If additional information is required, please contact City of Sacramento Department of Utilities, telephone (916)264-1400, or Mr. Justin Cutler, at the letterhead address, telephone (916) 557-5258.

Michael J. Walsh
Colonel, Corps of Engineers
District Engineer

Enclosures: Drawing(s)